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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------|
| 10/735,320 | 12/12/2003 | Bertrand Lion | LOREAL 3.0-003; OA02421/U | 2210 |
| 530 7590 12/13/2007 LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090 | | | EXAMINER BARHAM, BETHANY P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1615 | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 12/13/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/735,320 | Applicant(s) LION, BERTRAND | |
| | Examiner Bethany P. Barham | Art Unit 1615 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Summary

Receipt of Applicant's Response filed on 10/12/2007 is acknowledged. Claims 1-24 are pending. Claims 1-24 are rejected.

Maintained Rejections/Objections

Objections

Claim 8 recites "the dispersion of claim 14", this is believed to be an error and for the purpose of examination was treated as dependent from claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 14-18, 20 and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,851,517 ('517).

The limitations of claims 1-2, 4, and 14-18 are taught by '517:

- '517 teaches a dispersion of particles surface stabilized by polymer particles in a non-aqueous medium, in a cosmetic, hygiene or pharmaceutical composition (abstract). The dispersion of '517 is taught to consist of a non-aqueous liquid having a global solubility parameter, according to the Hansen solubility space, of less than $17 \text{ (MPa)}^{1/2}$, or monoalcohols having a global parameter, according to the Hansen solubility space, of less than $20 \text{ (MPa)}^{1/2}$ or mixtures thereof (col. 1, lines 36-51). '517 teaches that appropriate non-aqueous liquids of less than $17 \text{ (MPa)}^{1/2}$ are silicone oils such as polydimethylsiloxanes and polymethylphenylsiloxanes, hydrocarbon, fluoro oils, plant oils etc (col.3, lines 30-55).
- Further, '571 teaches that the dispersions nanoparticles of polymers are 5 to 600 nm in size and the polymers of the invention may be of any nature, possible to have radical polymers, polycondensates or even polymers of natural origin and that the polymers may be crosslinked with film-formers or non-film formers such as vinyl or acrylic radical copolymers or homopolymers, like polymethyl methacrylate, polystyrene or poly-tert-butyl acrylate and have a number average molecular weight of about 2000 to 10,000,000 (col. 2-line 33 to col. 3, line 6).
- '517 teaches that the polymers that act as stabilizers are incorporated and may be sequential or grafted block copolymers comprising at least one block of polyorganosiloxane typed and at least one block of a radical polymer or of a polyether or of a polyester (col.1, lines 52-55), in the amount of 2-30%, preferably 5-20% by weight that mention may be made of the grafted copolymers of

acrylic/silicone type which may be employed in particular when the non-aqueous medium contains silicone (col.4, lines 55-60).

The limitations of claims 20 and 22-24 are taught by '571:

- '517 teaches that oils may be present such as silicone oils, PDMSs, which are optionally phenylated, such as phenyltrimethicones, and volatile oils such as cyclotetradimethylsiloxane, cyclopentadimethylsiloxane, etc (col. 6, lines 2-8).
- '517 teaches additional components such as waxes, oils, gums and/or pasty fatty substances, pigments, antioxidants, fragrances, essential oils, preserving agents, moisturizers, vitamins, surfactants, etc (col. 5, line 45 to col. 6, line 37).
- '517 teaches that the hair composition of the invention is a crosslinked polymer dispersion in a silicone oil, which can be aerosols, foams, shampoos, conditioners, lotions or gels for styling or treating or lacquers or lotions for setting the hair and make-up products are for making up the eyelashes, mascara, eye-liner; lipstick, lip gloss or foundation (col. 6, lines 44-58). '517 teaches that the composition is to care for or make up the skin or keratin substances or a hair composition or a sun composition (col. 5, lines 33-38).

Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by US WO 93/23446 ('446), as evidenced by 5,851,517 ('517).

The limitations of claims 1, 3-5, and 7-8 are taught by '446:

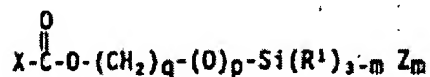
- '446 teaches a cosmetic composition comprising adhesive agents which are polysiloxane grafted polymers made by polymerization of polysiloxane containing

monomers and non polysiloxane containing monomers, the agent having a weight average molecular weight of at least about 20,000, and 1 to 50% by weight of polysiloxane containing monomer (abstract). '446 teaches that the molecular weight of a vinyl polymer backbone, polydimethylsiloxane macromer is at least about 500, preferably from about 1000 to 100,000, most preferably about 2000 to about 50,000 (pg.5, lines 29-pg. 6, line 7).

- '446 teaches that the polysiloxane grafted polymers comprise 1-50% by weight of polysiloxane monomers and 50-99% by weight of the non-polysiloxane monomers which can be selected from A and B monomers (pg.8, lines 3-8). A monomers are taught by '446 to preferably include n-butyl methacrylate, isobutyl methacrylate, t-butyl methacrylate, 2-ethylhexyl methacrylate, methyl methacrylate, etc, while B monomers include acrylic acid, methacrylic acid, hydroxyethyl methacrylate, etc. (pg. 8, line 9-pg. 9, line 8).

The limitations of claims 6 and 9-15 are taught by '446:

- '446 teaches that the preferred polysiloxane monomer has the formula:



where m is 1-3, (preferably m=1); p is 0 or 1; q is 2-6; R¹ is hydrogen, hydroxyl,

lower alkyl, alkoxy, alkylamino, aryl or alkaryl (preferably alkyl); X is $\begin{array}{c} CH=C- \\ | \quad | \\ R^2 \quad R^3 \end{array}$; R² is preferably hydrogen R³ is hydrogen, methyl or CH₂COOH (preferably methyl);

and Z is
$$R^4 - \left(\begin{array}{c} R^5 \\ | \\ -Si-O- \\ | \\ R^6 \end{array} \right)_r;$$
 R^4 , R^5 , and R^6 , independently, preferably lower alkyl, r is an integer of about 5 or higher, preferably 10-1500 (most preferably about 100 to about 250). Most preferably R^4 , R^5 , and R^6 are methyl, p=0 and q=3 and the level of this monomer is from 1 to about 50%, preferably about 1 to about 40%, more preferably about 2 to about 25% (pg. 9, line 9 to pg. 10, line 15).

- '446 teaches that polymer which are soluble or dispersible in less polar or nonpolar solvents, such as cyclomethicone (which is the silicone oil polydimethylsiloxanes, and evidenced by '517 teaches above as a non-aqueous liquids of Hanson solubility of less than 17 (MPa)^{1/2}) ('446 pg.10, line 30 and '517 col.3, lines 30-55). '446 teaches the compositions preferably comprise about 5-98% monomer A, from 0 to 80%, most preferably 0 to 20%) of monomer B, and from about 1 to about 40% (preferably 2 to about 25%) of monomer C (pg.10, line 30-pg.11, line 2).
- '446 teach examples polymers I-III with acrylic and silicone macromers, specifically polymer III is a PDMS macromer (polydimethylsiloxane) polymerized with isobutyl methacrylate, ethylhexylmethacrylate and dimethylmethacrylamide (pg.12, line 7-pg. 13, line 35).

The limitations of 16-19 are taught by '446:

- '446 teaches that the polymeric agent has a weight average molecular weight of at least about 20,000 (abstract, pg. 4, lines 33-35), and that there is no upper limit

but most preferably between the limits of about 100,000 and about 750,000 (pg. 5, lines 1-8).

- '446 teaches that the particles are of the size of a few hundred nm or less (pg. 6, lines 27-28).

The limitations of claims 2, and 20-24 are taught by '446:

- A mixture of acceptable carriers are taught by '446 which are suitable for application to the skin and hair are present in the amount of about 0.5-99.5%, most preferably from about 10 to about 98% (col. 15, lines 26-32), such as volatile silicon derivatives, especially siloxanes, such as phenyl pentamethyl disiloxane, methoxypropyl heptmethyl cyclotetrasiloxane, cyclomethicone, dimethicone, etc. (pg. 16, lines 16-25). As evidenced by '517 silicone oils above have a Hanson solubility of less than 17 (MPa)^{1/2} ('517 col.3, lines 30-55).
- '446 teaches additional components such as surfactants, pearlescent aids, coloring agents, oxidizing agents, reducing agents, sequestering agents, perfumes, polymer plasticizing agents, etc (pg. 28, line 22-pg. 29, line 13).
- Examples I-III teach the polysiloxane graft polymer composition in the amount of 4.5% by weight of the composition, example VIII teaches 3%, example XI teaches 4% by weight.
- '446 teaches a product for the hair (hair spray, mousse, tonic, shampoo, conditioner) (pg. 16, lines 1-3) and cosmetic compositions such as make up, mascara, eye liner, nail polish, skin creams and lotions, etc (pg. 4, lines 26-32).

Response to Arguments

Applicant's arguments with respect to claims 1-24 have been considered but are not persuasive. Applicant argues that '517 does not teach a silicone polymer with a vinyl backbone or a silicone macromonomer with an 'end group'. The examiner respectfully disagrees as shown in detail above, '517 teaches that mention may be made of the grafted copolymers of acrylic/silicone type which may be employed in particular when the non-aqueous medium contains silicone (col.4, lines 55-60). The art teaches various non-aqueous silicone containing mediums that the polymer can be dispersed in and that it is for use in cosmetics and as such anticipates the instant claims. Further, claim 1 does not detail/specify what type of 'end group' is on the silicone macromonomer and as such the polymers taught in '517 read on the instant claims. Applicant argues "At c.3, 11.38-39, it is stated that "[t]he polymer...may be of any nature." On page 2 of their response however the Examiner cannot locate the citation assumed to be col. 3, line 38-39, and as further shown above, the art prefers acrylic/silicone type grafted copolymers and as such anticipates the instant claims.

With respect to '446 Applicant argues that the art does not explicitly teach non-aqueous solutions and that the disclosure of silicone as a carrier media does not mean the that the media are non-aqueous. The Examiner respectfully disagrees as '446 teaches that the silicone-grafted polymers as made are either (a) soluble in aqueous formulation or (b) soluble or dispersible in solvents such as cyclomethicone (pg. 10, lines 20-31), which encompasses the instant claims. The mere fact that Applicant instant claims only polymers dispersed in solvents like cyclomethicone is not novel or

patentable over '446, which teaches dispersion in cyclomethicone or water. Further, '446 teaches that volatile silicone derivatives, especially siloxanes are preferred solvents for dispersing the silicone-grafted polymer (pg. 16, lines 16-25). Applicant further argues that '446 Examples IX and X teach away from applicant's invention as they teach compositions comprising water, however Example IV does not contain any water. In looking at the Example IX and X the "styling polymer premix" phase is free of water containing only a polymer (exp. B) and siloxanes and butyl stearate, the mere fact that it is added to make the personal care composition that further contains water is not outside the bounds of the instant claims. Further, Applicants Instant Example 8 contains large amounts of water in a personal care composition to which the silicone containing polymer dispersion is added.

Applicant further argues that inclusion of the '517 reference as evidence in the 102 rejection by '446 is incorrect. The Examiner respectfully points out that the '517 reference is simply relied upon to clarify that the silicone solvents (such as cyclomethicone or polydimethylsiloxane, etc) taught by '446 inherently have the global solubility parameter according to the Hansen solubility space of less than or equal to 17 (MPa)^{1/2} ('446 pg.10, line 30 and '517 col.3, lines 30-55). A reliance on a reference to show that a physical property is inherent is not incorrect and as such the rejection stands. The claims remain rejected and anticipated by '517 and also by '446 as evidenced by '517.

Conclusions

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany Barham whose telephone number is (571)-272-6175. The examiner can normally be reached on Monday to Friday; 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone


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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bethany Barham
Art Unit 1615


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